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PHOTOGRAPHIC INTELLIGENCE REPORT

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RADAR DEVELOPMENTAL AREA,
KAPUSTIN YAR/VLADIMIROVKA
MISSILE TEST CENTER, USSR

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DATE AUGUST 1965

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RADAR DEVELOPMENTAL AREA KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER, USSR

INTRODUCTION

This report, prepared in response to 2 CIA requirements, presents a detailed analysis of the Radar Developmental Area situated approximately 1 nautical mile (nm) north of the Kapustin Yar Airfield of the Kapustin Yar/Vladimirovka Missile Test Center (Figure 1). One of the facilities within this area is a tall cylindrical structure on an elevated coaxial platform which is similar to the "outriggers" at the Leningrad antimissile-missile/surface-to-air missile (AMM/SAM) launch complexes. 1/ This facility has been assigned the American-
[redacted] designator BEER CAN.

Although the present updating has used [redacted] photography from [redacted] it is based primarily on [redacted] photography [redacted] from which all mensuration and identification of components were determined. All measurements have been made by the Technical Intelligence Division, NPIC; all horizontal measurements are considered to be accurate [redacted] which-
ever is greater, and all heights are considered to be accurate within plus-or-minus 10 feet or 10 percent, whichever is greater.

DETAILED ANALYSIS

The Radar Developmental Area, situated at 48-41-10N 45-43-30E, is double fenced, is partially enclosed by a double firebreak, and is road served (Figure 2). The following components of the area have been analyzed in de-

tail (letters are keyed to Figure 2):

Elevated Platforms

- A. Eastern Elevated Platform (BEER CAN)
- B. Western Elevated Platform

Associated Radars

- C. Four radar mounds (three occupied by BACK NET-type radars)
- D. Four height-finder radars
- E. Two height-finder radars
- F. TALL KING radar

Miscellaneous Features

- G. Unidentified tower
- H. Hardstand with towers
- I. Two unoccupied, mounded hardstands
- J. Three unoccupied, mounded hardstands
- K. On-site control/support facility
- L. Possible heliport
- M. Probable transformer yard

Better quality photography and isodensity studies now allow a much more detailed description of the Eastern Elevated Platform (BEER CAN) and the Western Elevated Platform (items A and B) than has been possible heretofore. However, no significant alterations have been noted at either structure, and the absence of identifiable improvements or changes suggests that these facilities were operational, or at least externally complete, as of [redacted]

[redacted] A previous report, 2/ which indicated a possible operational status for the 2 platforms as early as [redacted] was based on photography [redacted] and may have established a somewhat premature date in view of the quality of that photography as contrasted with presently available coverage.

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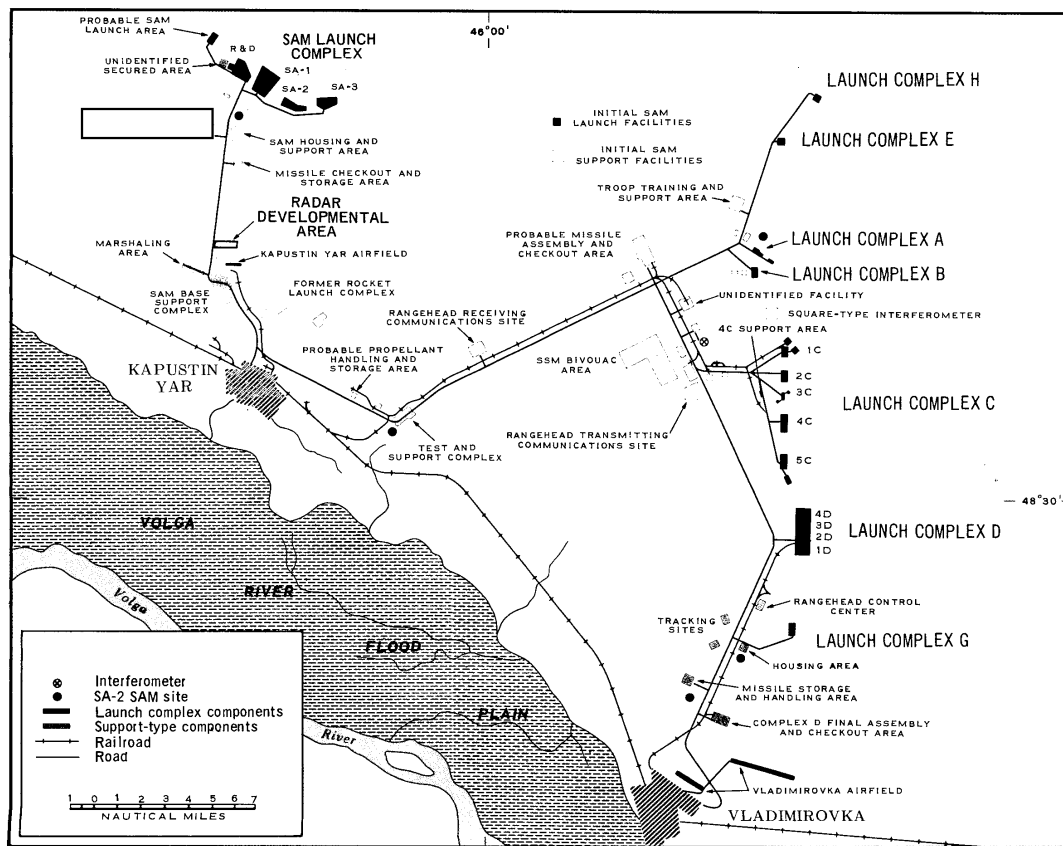


FIGURE 1. LOCATION OF RADAR DEVELOPMENTAL AREA, KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER.

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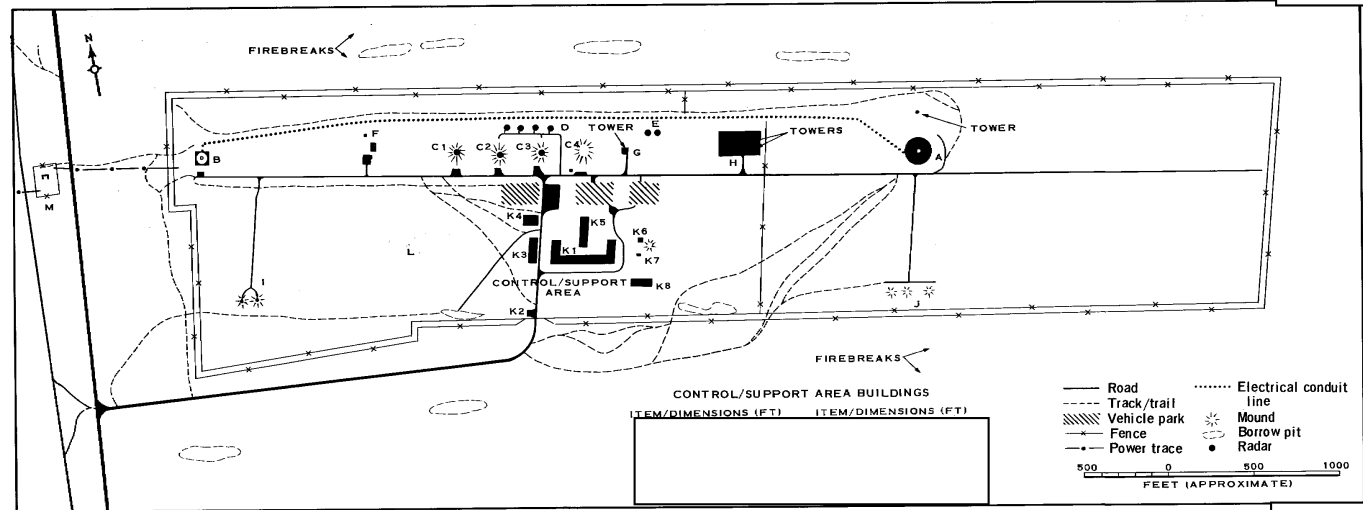
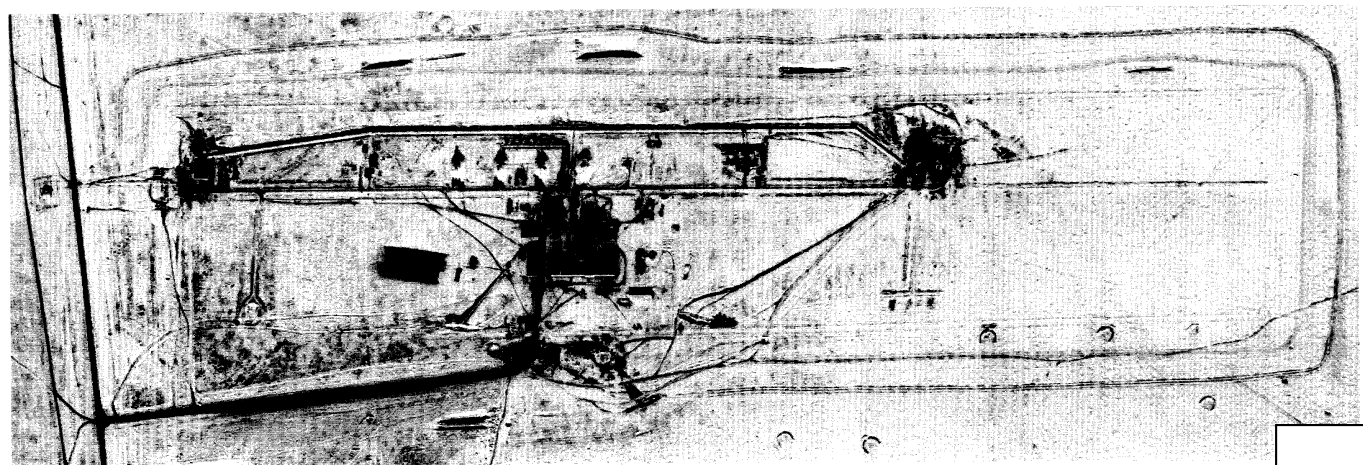


FIGURE 2. LAYOUT OF RADAR DEVELOPMENTAL AREA, KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER.

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Eastern Elevated Platform (BEER CAN)

The Eastern Elevated Platform (BEER CAN) (Figure 2, item A and Figure 3, right) is very similar to the "outriggers" at the Leningrad AMM/SAM launch complexes. 1/ 3/ The top of the platform is 75 feet above ground []

[] A cylindrical structure, 30 feet in diameter, extends 35 feet above the center of the platform, giving overall height of 110 feet for the platform and the structure. The top of the structure appears to be flat. A possible low parapet is situated on the outer rim of the platform and radial striations are visible on the surface of the platform. These striations do not form any apparent uniform pattern.

Immediately north of the BEER CAN is a self-supporting, lattice-type tower approximately []

Western Elevated Platform

Approximately 4,200 feet to the west of the BEER CAN is the Western Elevated Platform (Figure 2, item B and Figure 3, left). The 2 are connected by conduit. This facility consists of a building [] with a cylindrical structure of undetermined dimensions on top. This cylindrical structure in turn supports a platform which is [] and apparently much thicker than the platform of item A, as determined from shadow analysis. On top of this western platform is an unidentified object with dimensions [] and undetermined height. The overall height of the entire structure including the building is []

[] Its appearance does not resemble that of the BEER CAN (item A) to the east or of the BEER CANS at the Leningrad AMM/SAM launch complexes. However, in some respects it does resemble the probable radar position, Site B, at the Leningrad Southwest AMM/SAM Launch Complex, as illustrated in Figure 5 of

NPIC/R-439/64. 3/ The probable radar position at Leningrad consists of a hollow cylinder measuring approximately [] enclosed on 3 sides by a wall. During comparable construction stages, the 2 facilities would probably appear very similar.

Associated Radars

Four generally similar radar mounds (items C1-C4) are between the Eastern Elevated Platform (BEER CAN) and the Western Elevated Platform. Three of these radar mounds (items C1-C3) are occupied by BACK NET-type radars. These BACK NET-type radars have sails approximately [] The overall height of each radar positioned on its earth mound is 50 feet. Eight probable vans are parked immediately south of the 2 center mounds. Other activity is discernible in the vicinity of the mounds but this activity cannot be specifically identified because of poor definition of features on the photography.

Four height-finder radars (item D) are just north of the 4 previously described radar mounds, but they cannot be identified by name nor can their heights be determined.

Two height-finder radars (item E) are positioned together near the conduit between items A and B, and east of items C and D. They are each approximately [] but they cannot be identified by name.

A TALL KING radar (item F) is mounted on a building, [] which is situated in the area between items B and C1. Because of poor shadow definition, precise measurements could not be obtained, but the sails of TALL KING radars measured on photography of other parts of the USSR have been between [] Immediately north of the TALL KING radar is a small building, []

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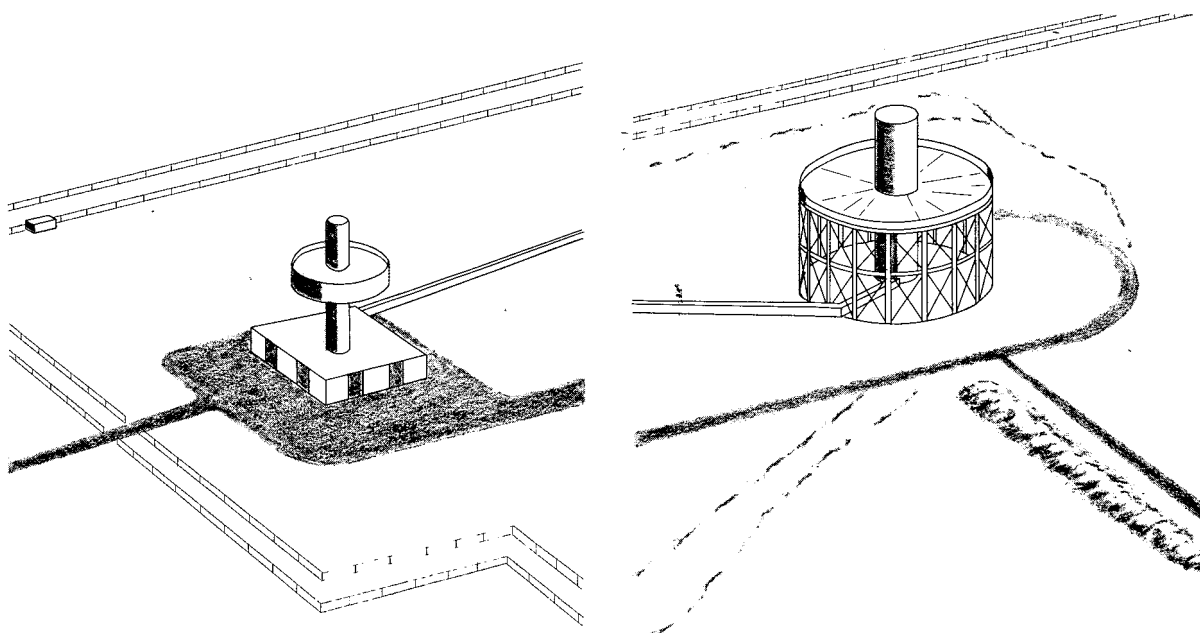


FIGURE 3. PERSPECTIVE VIEW OF ELEVATED PLATFORMS AT RADAR DEVELOPMENTAL AREA. LEFT, THE WESTERN ELEVATED PLATFORM AND RIGHT, THE EASTERN ELEVATED PLATFORM.

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Miscellaneous Features

A hardstand (item G), situated about midway between items C4 and E, is occupied by an unidentified tower that is approximately [redacted] high.

Another hardstand (item H), situated about midway between items A and F in the eastern section of the site, is occupied by 2 small buildings, [redacted] and a self-supporting, flat-topped, lattice-type tower approximately 80 feet high. This tower does not appear to be supporting any electronic equipment at the time of the [redacted] photography. Immediately adjacent and to the southeast of this tower is another tower or mast of unidentified configuration.

Two unoccupied, mounded hardstands (item I) are situated in the southwestern corner of the area. Three additional unoccupied earth mounds (item J) are almost directly south of the Eastern Elevated Platform (item A).

The on-site control/support facility contains a total of 8 buildings (items K1-K8), all apparently used for control, maintenance, housing, and storage purposes. Available mensuration is tabulated on Figure 2. The large control building (item K1) has 2 roof levels but because of a lack of good shadow definition of the upper level, only the lower height could be determined. Building K8 is gable roofed and is a probable barracks type. At least 12 probable vehicles and vans are dispersed throughout this facility. More detailed information could not be obtained because of photographic quality limitations caused by the deep shadows cast over portions of the facility.

A cleared ground pattern (item L), situated to the west of the on-site control/support facility, measures approximately 360 by 180 feet, and possibly serves as a heliport. Helicopters have been noted at the Kapustin Yar Airfield, which is 1 nm south of this area.

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A probable transformer yard (item M) is situated immediately west of the radar developmental area. Although power traces can be observed entering and leaving the probable transformer yard, the internal power network of the area itself cannot be accurately determined.

SUMMARY AND CONCLUSIONS

In previous reports, this Radar Developmental Area has been reported as an electronic research and development site, serving as a probable prototype for the "outriggers" at the

Leningrad AMM/SAM launch complexes. The availability of larger scale, higher resolution KH-7 photography now permits the identification of more conventional types of radar equipment, specifically BACK NET-type, a TALL KING, and height-finder radars. The presence of these radars indicates that this area is probably active in present and future electronic systems development. There is also evidence to indicate that the area was designated to accommodate additional radar/communication equipment.

REFERENCES

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0235-22HL, 4th ed, May 63, scale 1:200,000 (SECRET)

DOCUMENTS

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2. NPIC. R-802/64, *Electronic Research and Development Site, Kapustin Yar/Vladimirovka Missile Test Center, USSR*, Aug 64 (TOP SECRET [redacted])
3. NPIC. R-439/64, *Southwest Probable Antimissile-Missile Launch Complex, Leningrad, USSR*, [redacted] Jun 64 (TOP SECRET [redacted])

RELATED DOCUMENTS

NPIC. R-5139/64, *SAM Launch Complex, Kapustin Yar/Vladimirovka Missile Test Center, USSR*, [redacted] Dec 64 (TOP SECRET [redacted])

REQUIREMENTS

CIA. C-RR4-81,842

CIA. C-RR5-81,842 (Supplement 1)

PROJECT

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